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AUTHOR Borth, Audrey M.
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ABSTRACT

The relationship of socialization, sex differences, and achievement in elementary school is examined in this research. Data were collected from an all black, lower-class, elementary school and a racially mixed, middle-class, elementary school. Results indicate that sex-related student differences follow a general pattern regardless of which school the students attended. Fifth grade boys perceive themselves as more independent and peer-oriented while girls are more dependent on family and teacher feedback and approval. Boys describe themselves as more self-satisfied, aggressive, dominant, work-oriented, and interested in getting along with peers. However, certain attributes which the majority of boys value are counterproductive for academic achievement. The boy who depends on an aggressive work orientation and endurance to cope with the demands of school is among the lowest achievers. These aggressive achievement motives come into conflict with student role expectations in relation to the authority figure of the teacher. As a socializing institution the school is successful in lessons of self-abnegation, dependency, deference, and passivity and thereby reflects the bias of the wider society. (Author/DE)

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SEX DIFFERENCES IN COPING AND DEFENDING IN TWO SCHOOL CONTEXTS

by

Audrey M. Bor[illegible]

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SEX DIFFERENCES IN COPING AND DEFENDING IN TWO SCHOOL CONTEXTS

Audrey M. Borth, Ph.D., Associate Professor and Chairperson,
Department of Education, Lake Forest College, Lake Forest, Ill. 60045

This is the report of an analysis of sex-related student differences in styles of coping and defending in two school contexts. The purpose of the larger inquiry of which this analysis was but a part, Coping and Defending in Black Classrooms, focused on non-intellective correlates of achievement in a special social context: an all black urban elementary school.

Data were collected on a Student Interview Schedule administered orally in small groups in grade 5, and from school records. The performance variable standing for achievement (and by which children are ability tracked in this urban system) was the latest recorded standardized reading score.

Following a Lewinian model (Lewin, 1935) describing behavior as a function of the interaction of person and environment, we clustered non-intellective correlates in three categories: Background or Descriptive Variables (sex, race, social class, age, I.Q. and family structure); General Psychological Variables (motives and defenses); and specifically School Related Variables (learning climate and style, norms, and sentiments toward school.)

Viewing achievement on the continuum of all scores available for the Metropolitan Achievement Tests in reading, we regressed our psychological and school-related variables plus age and I.Q. on it. We also factor analyzed the data in terms of shared variance to describe what we refer to in this study as typical strategies for responding to the demands and expectations of the school situation (coping and defending strategies).

At the outset we had hoped to characterize achievers in this social setting in enough specificity to enable us to develop a model for intervention in the early school life of children who were not succeeding in the system as it is now constituted.

The underlying assumption with which we began our study was that the achievement level of almost all students, regardless of race, sex, social class or family background, can be raised within the school context. We questioned both the narrow conception of "fixed limits" of student attainment (Hunt, 1962), and the necessity, though not the existence, of the overwhelming effects of family background on school success (Coleman, 1966).

Our assumption was sorely tried by two years of intimate contact and research with fifth graders in the urban black school hereafter referred to as Southside.

It was to some measure supported by a less extensive comparative study in a nearby University School.

Although the backgrounds of the children at University School were certainly "richer" in many respects than those of the children at Southside, and their achievement motivation higher, it was not so much the differences between populations as the residual similarities which we speculate belong to the general role of elementary school student that interested us. In many respects, the basic characteristics of "studenthood" (high Deference, Endurance, Dependency, Work scores; low Autonomy, Dominance, Aggression and Flight-Fight scores) remained the same in both school contexts, as did the age-graded, teacher dominated control structure of classrooms. (Table 1.)

Having analyzed the data in search of correlates of achievement (Table 2) and in the hope of identifying related coping and defending strategies for successful students in the two schools, we used again the same procedures to analyze by sex. We found the sex related student characteristics also followed a general pattern regardless of school attended: at both Southside and University the boys in our studies described themselves as "more self-satisfied," "aggressive," "dominant," and "work oriented," and more interested in the norm that "it is just as important to get along with others as to do school work" (male 'bonding' appears to develop early) than did the girls.

Regardless of which school they attended, the girls responded that they were from families they perceived as "more interested in their schooling," that they "liked school" more; that they favored "a friendly cooperative learning style;" and that "it is good to participate in class discussion" to a greater extent than boys did. In other words, by fifth grade boys seemed to perceive themselves as more independent and peer-oriented while girls seemed more dependent on family and teacher feedback and approval.

Overall, however, boys and girls were more likely to respond similarly to classroom expectations (andronomously) at University School, and to respond differently (more in accord with traditional sex role stereotypes) at Southside Elementary. The sex differences were wider in the lower class black school sample than in the same age group at middle class, racially mixed University School.

Results of the Regression Analysis for Boys at Southside

All of the variables, background, psychological, and school related (as represented by Table 1) were regressed on the performance variable, Metropolitan reading score. Approximately 67% of the achievement variance among boys is accounted for in the multiple regression.

Aggression, Deference, Work, Endurance, and Number of children in the family were found to be negatively related to achievement in the multiple regression for boys. I.Q., Family structure (intact), preference for a "friendly, cooperative classroom learning style," Flight, the belief that "it is just as important to get along with others as to do school work", and Age were positively related to achievement. In the step down analysis, the only variables significantly positively related to achievement were I.Q. (.01), Family structure (.01) and Classroom Learning Style (.05).

Since I.Q. was most highly correlated with achievement among the fifth grade boys in this school it is interesting to note how other variables were related to I.Q. in the correlation matrix. Positive sentiments toward school (.21), Aggression (.26), and Flight (.30) as well as Reading Score (.60) were positively correlated with I.Q. Negatively associated with I.Q. were Deference (-.35) and Pairing (-.43). It is particularly interesting to note that Aggression is negatively associated with achievement but positively associated with I.Q. Deference, the strategy the majority of our subjects, both boys and girls tell us is important in the classroom (factor analysis) is negatively associated with both I.Q. and achievement among boys.

Results of Regression Analysis for Girls at Southside

Using the same procedure we found approximately 31% (less than half that of the boys) of the variance among girls is accounted for by our variable clusters. That, in itself, tells us something about the differential approach to schooling of boys and girls.

Positively associated with achievement for girls were the belief that "the teachers should try to understand how students feel," "feelings of control over the environment, the belief that "it is good to help others with school work except during tests," and the number of children in the family. In the step down analysis only the idea that "teachers should try to understand how students feel" is significantly positively related to achievement (.05).

In the correlation matrix this variable is not related to any of the other independent variables.

Report of Factor Analysis for Boys at Southside - Coping and Defending Strategies

Psychological and school related variables, plus age and I.Q. were entered into the factor analysis. The resultant factors are clusters of variables which help explain the data in terms of common factor variances. They help us to locate and identify the unities underlying responses for boys. The factors were tentatively interpreted on the basis of the researchers' knowledge of all the data analyses. We looked for constructs that might help to explain variances in style of coping and defending boys purport to value in this setting.

Factor loadings for the first five factors of the nine factor rotated structure are reported here. They account for 61% of the variance.

Factor I which accounts for 14% of the variance loaded highest on general psychological variables; Aggression and Fight vs. Endurance and Work. This bipolar factor described two opposing clusters: one, the type of student who is high on Aggression and Fight but correspondingly low on Endurance and Work; two, the toy who is high on Endurance and Work but low on Aggression and Fight. We know from previous analysis of the data that the majority of these boys choose Endurance and Work values over Fight and Aggression. However, in the regression analysis, Aggression, Endurance, and Work are all negatively related to achievement belief in work orientation significantly so. Fight and Aggression, though clearly not encouraged in this school context was positively associated with I.Q.

Factor II, accounting for 13% of the variance was another bipolar factor of mixed psychological and school related variables. Positive sentiments toward school and Concept of Ability vs. Flight. This factor seemed to describe the kind of boy who is either "in it" or "out of it" in school. In this context it is the boy who opts "out" through Flight, a psychological defense against environmental press, who is the highest achiever. In the regression analysis Flight was positively related to achievement while Sentiments toward School and Self Concept of Ability, school related variables, dropped out of the analysis.

Factor III, (12%) loaded highest on three school related variables (norms): "It is good to help others in school;" "You should always work hard"; and "It is good to ask the teacher for help". This factor described the boy who is socially oriented and believes in conforming, at least verbally, to both peer and teacher expectations. He may be a pleasant class member but it doesn't help him at all as far as achievement is concerned.

Factor IV (12%), a mix of psychological and school related variables, is again a bipolar factor describing the inverse relationship of I.Q. to Pairing and Age. It describes the type of younger, bright boy who achieves on the basis of his measured intelligence or the older peer oriented boy who uses friendship as a defense. I.Q. and Achievement are most high correlated in boys (.50).

Factor V (11%) loaded highest on Self Satisfaction (Psychological) and the idea that "school work should be fun" (school related). This boy's coping strategy also seems to be socially oriented: he sees school as an occasion for fun and feels good about himself.

What this factor analysis of the data shows most clearly is that there is no necessary relationship between the motives, values or perceived expectations of the student role held by most of the boys in this setting and their academic achievement. In fact, the attributes the majority of boys value are often counter-productive for academic achievement. The boy who believes Work Orientation and Endurance constitute appropriate strategy for coping with school demands will be among the lowest achievers. We have shown in the regression analysis that both variables are negatively related to achievement. The boy who likes school and thinks he is doing well and in turn rejects Flight as a defense, also works against his own achievement. Flight as a defense against classroom interaction is positively related to achievement. In summary, it is the most sociable "in it" boy who achieves least. The withdrawn "out of it" student who depends primarily on his measured intelligence on entrace is the one who achieves best in school.

Factor Analysis - Girls

The first five factors of the 9 factor, rotated structure reported here account for 64% of the variance among girls' responses.

Factor I (14%) loaded highest on psychological variables and was made up of the same bipolar components as Factor I for boys: Work and Endurance vs. Fight. (The Aggression variable did not emerge with Fight in the girls' analysis). Obviously the school has conveyed to most students, regardless of sex, the value of Work Orientation and "sticktoitiveness". Few girls are high on Fight scores; but when

they are they will be correspondingly low on Work Orientation and Endurance. Neither of these strategies, however, are related to academic outcomes for girls. As mentioned earlier, the only psychological variable related to achievement among girls in this school was "feelings of control over one's self and life chances" (autonomy). Only the belief that "the teacher should try to understand how students feel" (school related) was significantly related to achievement.

Factor II (13%) also loaded highest on psychological variables unrelated to actual achievement. This bipolar factor, Need Achievement and Deference vs. Aggression and Autonomy, described two kinds of girls: those (the majority) who are desireous of achievement and who see giving up aggressive and autonomous feelings for deference as an appropriate way of fulfilling achievement needs; those (few) who would rather perceive themselves as assertive and independent by eschewing Deference and Achievement motivation if it costs them their autonomy.

Factor III (13%) loaded highest on school-related variables: the idea that "a friendly, cooperative learning style is best"; belief that "it is good to ask the teacher for help." Socially oriented toward peers and dependent on the teacher's good offices, this kind of girl uses an interactive strategy which undoubtedly makes her a good student role encumbent but helps her not at all in producing academically.

Factor IV (13%) also loaded high on classroom norms: "It is good to take part in class discussion" (i.e., the teacher likes it): "School work should be fun most of the time." Unfortunately, at this school, girls who think school work should be pleasant are losers. This variable is significantly negatively associated with achievement in the regression analysis for girls.

Factor V (12%) like Factor IV for boys was a bipolar factor which loaded highest on background variables, Age vs. I.Q., but does not show Pairing or friendship as does the boy's factor. I.Q. was not related to achievement among girls.

In none of the first five factors did the type of girl who is most likely to achieve -- the one who believes that "the teacher should really try hard to understand how students feel" appear. Her apparently uncommon, but productive strategy is, we conjecture, to identify with the teacher and to try to get the teacher to understand how she feels by feeling most like the teacher. It is probably this mutually reinforcing interaction (in which the boys are unlikely to be interested) between the teacher and this kind of girl which help her achieve.

As is usual in social psychological research as it is now designed, our data had far less explanatory power for girls than for boys. This is most clear in the fact that variables in the regression for boys account for 66% of the variance while the same variables entered into the regression for girls accounted for only 31%. As a further example, Reading score and I.Q. are highly correlated (.50) in the data for boys, insignificantly (.18) in the data for girls.

The highest positive correlation among all the variables (Background, Psychological, School-related, Performance) entered into the correlation matrix for girls was between reading achievement and the belief that "the teacher should try hard to understand how the students feel" (.36).

Results of One-Way Manova

To test the significance of the differences observed between boys' and girls' strategies at South Side, we performed a multivariete analysis of variance to test the null hypothesis of no difference between groups, using I.Q. and Age as co-variates.

The overall F ratio for the multivariate test of equality of mean vectors was 2.17 with 28 and 81 degrees of freedom. The F was significant with a p of less than .004. The null hypothesis was rejected. We found a multiple combination of variables that significantly discriminated between boys and girls at Southside.

Girls' scores were significantly higher than boys on Sentiments toward School (they like it more); Deference (stereotypical); and preference for "a friendly, cooperative learning style" in the classroom when Age and I.Q. were controlled.

Boys' scores significantly exceeded girls' on Work Orientation; Pairing (friendship as a defense); the belief that "it is just as important to get along with others as to do school work".

I.Q. and age aside, the picture that begins to emerge from the data on coping and defending differences between boys and girls at the fifth grade level seems predictive of later sex role differences as they are perceived by the wider society. What is learned in school appears to bear much better relationship to role socialization than to instrumental achievement. In short we might say that girls relate to authority and learn to like it, boys relate to Work and depend on their peers for support.

Our sample in the University School study was too small for the powerful Manova procedure. However, as we noted at the outset, girls from both schools reported that they were from families more interested in their schooling; that they had more positive sentiments toward school; that they favored a friendly cooperative learning style, and that "it is good to participate in class discussion" to a greater extent than boys did.

Boys from both schools exceeded girls on "Self satisfaction", Aggression, Dominance, Work orientation; and the idea that "it is just as important to get along with others as to do school work". Background variables -- race, class, age, I.Q., family structure -- on which the two school populations were significantly different, seemingly have little impace on sex role differences as we have looked at them in these school contexts.

Conclusion

This research investigated the relationship between socialization and achievement in elementary school. Its findings suggest that the relationship is antithetical; that school has oppressive effects on children, particularly girls, in a coeity which uses its institutions to perpetuate inequality and stereotyping and then rationalizes its stratifications by blaming the victim. "Current educational problems stem not from the fact that the schools have changed, but from the fact that they continue to do precisely the job they have always done" (Greer, 1969). What they have always done is to stream and train according to the needs of the prevailing social structure and in conformity with its stereotypes of age, sex, class, and socio-economic status.

If social psychological research is to be of pragmatic as well as scholarly value, it must ask questions about the organization, nature and purpose of schooling in its social context and as it has historically operated. Continuing research effort should be directed at questioning the validity of the stated goals of social institutions. At the inception of the research discussed here, for example, we too, in best university style, accepted a conventional sociological definition of the function of an elementary school. "An elementary school is a social organization primarily concerned with the encouragement of activities in which children demonstrate how well they can achieve; adult members assign specific tasks to non-adult members who in turn are expected to perform and submit results for evaluation" (Dreeben, 1968). At its conclusion we concurred rather that "the picture of educational disadvantage which emerges with examination of achievement data is a clear indication of the failure of school systems" (Stodolsky and Lesser, 1967).

What is being learned in school, consciously or unconsciously, is the student role defined in these data by expectations for defensiveness, dependency, stick-to-itiveness, passivity and conformity. In most children we found aggressive achievement motives come into conflict with student role expectations, particularly in relation to the authority figure of the teacher. This conflict seems to be resolved by the majority of student role encumbants in favor of complementarity -- that is -- that there is but one dominant, autonomous, aggressive, role in the classroom and that one is institutionally prescribed for the teacher.

Such role expectations are differentially detrimental according to sex, socio-economic status and caste. Blacks, the poor, and females are least likely to break out of the belief system perpetrated by schooling because the power structure and social stratification of the wider society work to keep them in their place while the next generation of white, middle class males (and even a few black males) are being selected out to advance to favored positions in society.

Our hope is that the findings reported here, in collaboration with other such studies, will lead us to reexamine au fond our current assumptions about the function of schooling and the nature of the student role.

As a socializing institution the school seems uniformly successful in the lessons of self abnegation, dependency, deference, endurance, and passivity; far less successful in producing healthy human beings equipped with coping strategies conducive to instrumental achievement and personal integration.

SIGNIFICANCE OF THE STUDY

The primary importance of this study is that it adds to the accumulating evidence that schooling, as an institution, reflects and enforces the bias of the wider society; most particularly, that schooling, as it is now structured, is based on the ascendence of ascribed authority over individual aspirations and achievement. Being a student, like being female, being black, or being poor is a repressed state against which role encumbants must fight in order to achieve scholastically, economically or socially. Is it any wonder that given such contrary signals between being a "good student" and being an achiever, the accomplishments and the mental health of so many young persons, male and female, are impaired?

These data along with other such studies, may hopefully provide educators, particularly those involved in teacher training, with a background against which to ask further questions about the nature of the student role and its relation to academic achievement in the conventional classroom.

APPENDIX

TABLE I

VARIABLE MEANS FOR TOTAL FIFTH GRADE SOUTHSIDE AND UNIVERSITY SCHOOL SAMPLES

Psychological Variables	Southside		University		Difference[a]	
	Mean	Error	Mean	Error	Mean	Sig.
Achievement	5.62	.14	6.20	.21	.58	.05
Aggression	3.79	.19	3.44	.28	.35	NS
Autonomy	3.97	.15	4.76	.24	.79	.01
Deference	5.88	.15	5.76	.31	.12	NS
Dominance	3.72	.16	4.07	.30	.35	NS
Endurance	6.98	.16	5.78	.28	1.20	.01
Work	12.43	.20	15.13	.34	2.70	.01
Flight	7.20	.24	6.16	.36	.04	NS
Fight	8.19	.27	5.20	.31	2.99	.01
Dependency	12.45	.25	11.62	.34	.83	NS
Pairing	9.74	.18	10.89	.30	1.15	.01
Control	23.55	.20	26.73	.32	3.18	.01
Anxiety	19.74	.20	16.62	.35	3.12	.01
Self-satisfaction	5.26	.07	5.60	.12	.34	.01
School-Related Variables	**Mean**	**Error**	**Mean**	**Error**	**Mean**	**Sig.**
Sentiment toward school	16.55	.20	17.40	.21	.85	.01
Concept of ability	12.13	.27	12.84	.34	.71	NS
Class discussion	2.75	.05	2.91	.04	.16	NS
Seek teacher's help	2.79	.05	2.76	.08	.03	NS
Teacher affect	2.74	.06	2.71	.07	.03	NS
School fun	2.66	.06	2.49	.08	.17	NS
Cooperation	2.60	.07	2.67	.07	.07	NS
Hard work	2.88	.04	2.78	.07	.10	NS
Social standard	2.52	.07	2.78	.06	.26	.05
Learning style	9.38	.18	11.04	.19	1.66	.01

[a]Two-tailed t-tests used to determine level of significance.

REGRESSION ANALYSES

TABLE 2

REGRESSION RESULTS FOR UNIVERSITY SAMPLE

	F	Significance	DF
Multiple R = .73	3.35	.01	11/33
Independent Variables			
Concept of ability	6.29	.05	1/33
School work fun	4.63	.05	
Pairing	-4.35	.05	
Fight	4.12	.05	
Sentiments toward school	-3.30	NS	
IQ	2.60	NS	
Teacher affect	2.06	NS	
Number of children	-1.79	NS	
Autonomy	-1.61	NS	
Family structure	-1.25	NS	
Always work hard	1.19	NS	

TABLE 3

REGRESSION RESULTS FOR SOUTHSIDE FIFTH GRADE POPULATION

	F	Significance	DF
Multiple R 0.57	6.12	.01	8/103
Independent Variables			
IQ	19.91	.01	1/103
Age	6.77	.05	
Flight	6.40	.05	
Teacher affect	3.71	NS	
Deference (negative)	-2.26	NS	
Class participation	2.14	NS	
Anxiety (negative)	-1.82	NS	
Family structure	1.75	NS	